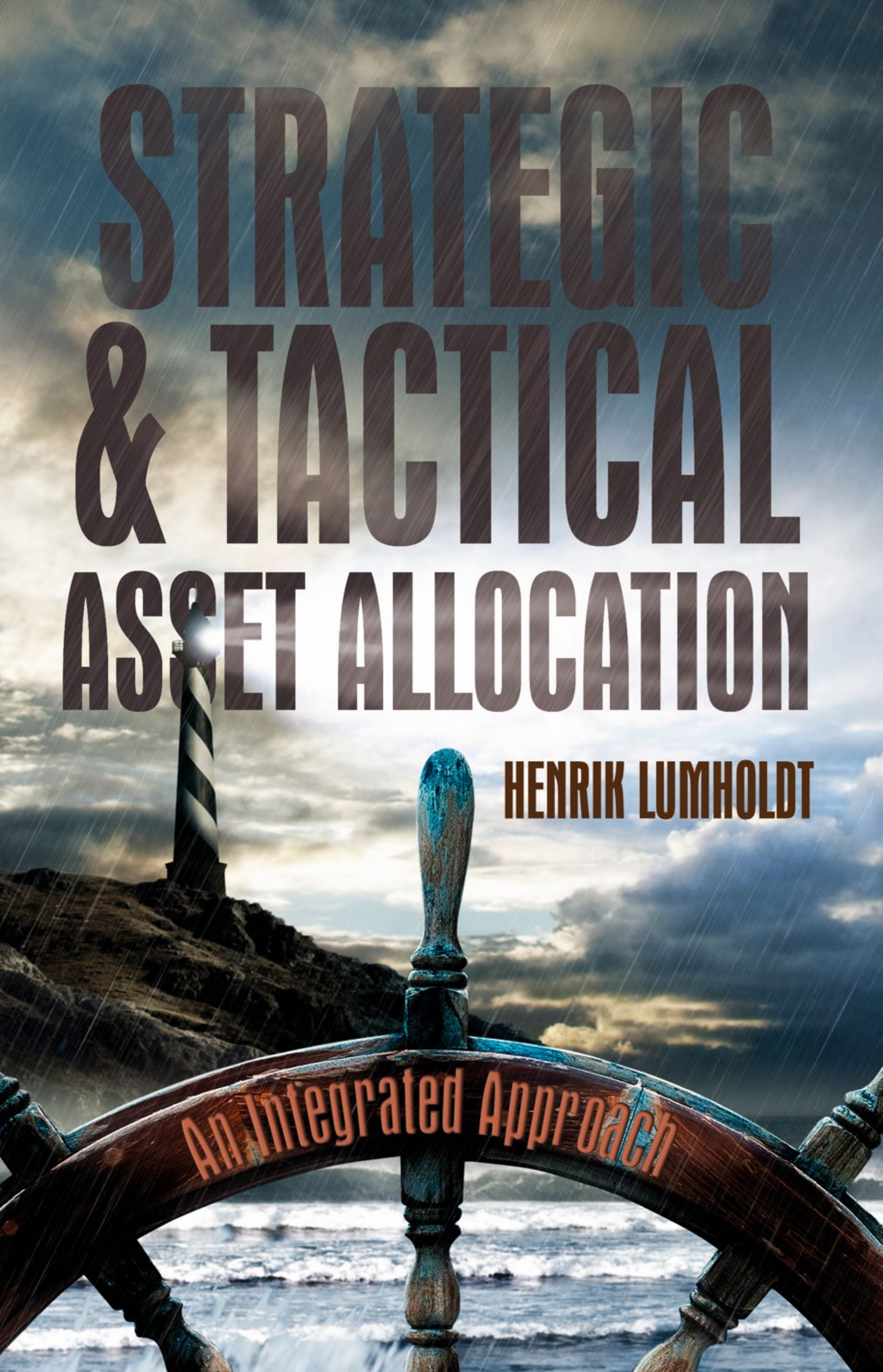
STRATEGIC & TACTICAL ASSET ALLOCATION



HENRIK LUMHOLDT

An Integrated Approach

Strategic and Tactical Asset Allocation

Henrik Lumholdt

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An Integrated Approach

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Preface

Decisions, decisions, decisions. Wouldn't it be great if we could leave our investments to take care of themselves, in some kind of passive or neutral approach? The term "passive" is a straightforward concept when it comes to a specific asset class, such as stocks or bonds. We can choose an active manager who tries to outperform the overall market by picking the right securities at the right time. Or we can choose a low-cost index fund or Exchange Traded Fund (ETF) and passively track the overall market.

But "passive" is a more ambiguous concept when it comes to asset allocation. We could compose a portfolio of assets with given relative weights and then stick to that. This would be passive in the sense that we would make no subsequent adjustments apart from rebalancing. But it wouldn't be passive in the sense that we had made no decision. We would simply have shifted the decision to a more strategic level, allowing the final outcome to depend entirely on our assumptions about returns over the investment horizon. These assumptions would be tested again and again, sometimes severely as during the crises of 2001–2003 and 2008–2009. Will we hold up or will we bail out at precisely the wrong moment and lose faith in our long-term strategy? Is there no alternative to such a one-sided approach? The view expressed in this book is that there is.

In some respects asset allocation resembles navigation at sea in the old days when most ships had sails. We need an overall map to indicate general directions to our destiny. That is our strategy. But we also need to be able to temporarily divert from the general route when changes in winds or currents make this necessary. That is where tactics enter the picture.

The tactics do not contradict the strategy but are meant to reinforce it and make it viable. The central idea of this book is that for most investors an integrated approach between strategic and tactical asset allocation makes the most sense.

Asset allocation is almost by definition a top-down exercise. Stock-pickers, arbitrageurs or portfolio managers specializing in a given asset class are naturally focused on company, market or instrument specifics. The asset allocator, by contrast, must think big-picture in order to generate views about asset classes as a whole and the interaction between them under different scenarios. Top-down factors are therefore at the forefront of asset allocation decisions.

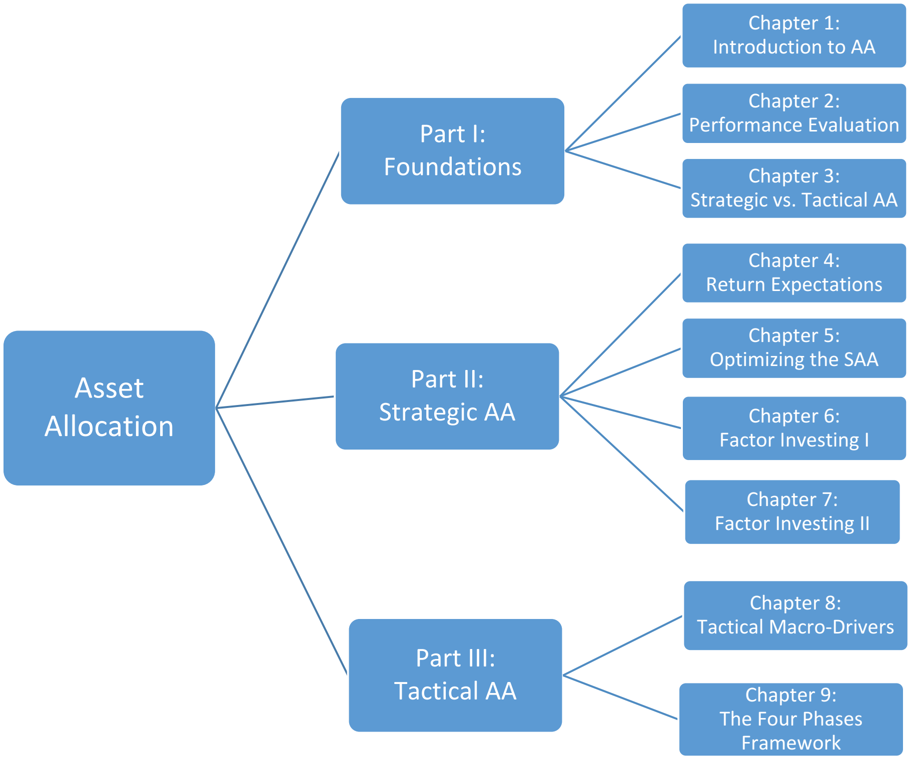
This book is aimed at finance practitioners looking for a coherent framework for decision-making in asset allocation. It therefore covers each step in the asset allocation process, from the strategic to the tactical level. It is ideally suited for portfolio or wealth managers, financial analysts, strategists, chief investment officers and other finance professionals engaged in either making or recommending investment decisions.

The field of asset allocation has never been more exciting. Frontiers are constantly being moved and the asset management industry is undergoing a minor revolution. This is reflected in academic finance as well where old ideas are being revised and new ideas are being tested empirically as never before. Inevitably, the literature in the field has also grown by leaps and bounds.

Before writing this book, I set myself the following goals:

- It should be self-contained.
- It should be concise rather than encyclopedic and focus exclusively on asset allocation.
- It should include the most relevant empirical evidence and strike the right balance between theoretical principles and the often fuzzier real environment in which market practitioners must operate.
- It should express an opinion about the subject and offer a concrete approach to asset allocation.

I leave it to you to decide whether I have managed to meet these goals or not. The structure of the book is as illustrated below:


Asset Allocation
Part I: Foundations
Chapter 1: Introduction to AA
Chapter 2: Performance Evaluation
Chapter 3: Strategic vs. Tactical AA
Part II: Strategic AA
Chapter 4: Return Expectations
Chapter 5: Optimizing the SAA
Chapter 6: Factor Investing I
Chapter 7: Factor Investing II
Part III: Tactical AA
Chapter 8: Tactical Macro-Drivers
Chapter 9: The Four Phases Framework

Part I sets out the practical backdrop to asset allocation, emphasizing how the different levels of decision interact and how performance is subsequently evaluated. It rounds off with a preliminary discussion of why the strategic and tactical approaches should be integrated.

Part II goes through each element in the strategic asset allocation process. It takes a close look at which factors determine long-term asset returns and discusses the challenges of forming expectations. This is followed by a discussion of the pitfalls of optimizing the strategic asset allocation, possible remedies and alternative approaches. Part II finishes with two chapters on factor investing, a subject of growing relevance to modern investors. It looks at the theory behind factors, their empirical record and issues of implementation.

Part III zooms in on the tactical level. It discusses the relevance of the business cycle and how it relates to fluctuations in corporate earnings and the policy decisions made by the central bank. It shows how using the concept of the output gap can provide useful information on where are in the cycle at any given moment. The key idea here is the business cycle is of crucial importance, and we show how different asset classes tend to perform in different phases of the cycle. The framework used is suggested as a useful background for tactical asset allocation (TAA) decisions. An appendix at the end of the book outlines the mechanics of mean-variance optimization (MVO). We make reference to MVO several times throughout the book and the appendix is therefore included as a concise introduction or refresher.

The first two chapters of the book cover relatively standard topics and may be skipped by readers who are already familiar with this. From there on, the discussion departs from standard textbook material, reflecting the many assessments to be made and the challenges facing the practical asset allocator. The reader will notice that the book is rather US-centric. There are two reasons for this. Firstly, there is simply more data available on the US markets and most of the empirical research has been focused on the US. Secondly, it is our belief that the main market trends are still set in the US markets. Getting the US scenario right is therefore a crucial starting point, independently of where the investor is based.

Madrid, Spain Henrik Lumholdt

Acknowledgments

You know that you have friends in life when someone offers to help—and then actually does so. The following people have provided unique input and invaluable advice.

Ignacio Montejo, Founding Partner and Director of International Capital Research (ICR) said to me that he “wouldn’t mind having a look at the book”. What followed was much more detailed and valuable feedback than I could possibly have expected. Direct errors were spotted, be it in a formula or a sentence, inconsistencies were pointed out, new ideas were suggested, I could go on.

Ignacio Chacon de la Rosa, Quantitative Multi-Asset Portfolio Manager at Fonditel, said he didn’t really have much time, but that I was welcome to send him the manuscript. When we would subsequently meet for lunch, Ignacio always brought printed copies of the Word documents with underlinings in several colors. No details missed. Getting close to the deadline for the book, Ignacio helped me to remember some of the specifics of the study of the Four Phases framework which we developed together, but which ultimately relied on Ignacio’s meticulous number crunching.

Teis Knuthsen, Chief Investment Officer of Kirk Kapital, and transitioning to his current position when we got in touch, offered to have a look at the manuscript. How he found the time is still a puzzle to me. But he did. Indeed, in one of our conversations about Factor Investing, he offered to send me his research on factor cyclicality. In the end, he wrote the appendix to Chap. 7 on this topic instead.

Jan Loeys, Managing Director and Senior Advisor, Long-Term Strategy, at J.P. Morgan, and also transitioning to a new role at his firm, found time to offer feedback in the early stages of the book. Jan reminded me that this

should be a book for decision-makers. “Avoid too much on the one hand, and on the other hand—state your views!” said Jan. Good advice.

Ignacio Muñoz Alonso, fellow adjunct professor at the IE and well-honed finance professional, read the book toward the end and offered several useful suggestions.

Ignacio de la Torre is the academic director of the IE Business School apart from being a partner at Arcano Partners. He is the principal reason why the finance program at the business school has prospered the way it has, which brings me to the next group to mention: all my present and former students. In many ways they are really the reason I undertook this project in the first place. At the IE we talk theory, but we certainly also talk real markets. Young people full of appetite on life, and unafraid to ask relevant questions, keep you on your toes. They keep reminding me that finance is anything but dull.

Steven Zitzer took up the role of editing the manuscript. He looked at the text with a magnifying glass and eliminated as many direct errors as possible. But Steven also gave excellent advice on writing style.

Finally, and most importantly, my thanks to Maria, my partner in life to whom I dedicate this book. Maria joked that I had a not-so-secret mistress, also known as “El libro”. So true. But she put up with it and encouraged me all the way. Lucky me!

The usual disclaimer applies: I retain full rights to all remaining errors.

Contents

Part I Foundations 1

1 Introduction to Asset Allocation 3

2 Performance Evaluation 21

3 Strategic Versus Tactical Asset Allocation 47

Part II Strategic Asset Allocation 61

4 Long-Term Return Expectations 63

5 Optimizing the Strategic Asset Allocation 99

6 Factor Investing I 115

7 Factor Investing II 149

Part III Tactical Asset Allocation 173

8 Tactical Macro-Drivers 175

9 The Four Phases Framework 197

Appendix: The Mechanics of Mean-Variance Optimization 211

References 231

Index 243

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Henrik Lumholdt is a seasoned finance professional with more than 30 years of capital markets experience. He is the founding partner of Inside Economics, a consultancy, which advises international investors and multinational corporations. Henrik was until recently the Chief Investment Strategist for Spain's largest asset management company, BBVA AM. Previous positions include Chief Economist for Bank of America, Spain, Head of Fixed Income Research at FG/Merrill Lynch, and Senior Economist at Nordea Bank. A member of the work group for international economics at Spain's think tank, El Real Instituto Elcano, he spends a considerable part of his professional time focused on international economies and markets. Henrik has been an adjunct professor of finance and economics at IE Business School since 2001 and has won numerous prizes for outstanding teaching.

List of Figures

Fig. 1.1 A bond universe 4
Fig. 1.2 An equity universe 5
Fig. 1.3 The asset allocation process 6
Fig. 1.4 The investment process 10
Fig. 2.1 Portfolio ranking on the Treynor ratio 28
Fig. 2.2 Jensen's alpha versus the Treynor ratio 31
Fig. 4.1 Rolling ten-year nominal and real returns. (Source: Robert Shiller's data base, http://www.econ.yale.edu/~shiller/data.htm) 67
Fig. 4.2 Yield levels and the yield curve. (Source: Bloomberg) 72
Fig. 4.3 S&P 500: dividend yield. (Source: Robert Shiller's data base) 82
Fig. 4.4 S&P 500: dividend growth. (Source: Robert Shiller's data base) 82
Fig. 4.5 Total annualized returns and the contribution from changes in the *P*/*E* ratio. (Source: Robert Shiller's data base) 86
Fig. 4.6 CAPE and subsequent ten-year real returns. (Source: Robert Shiller's data base) 87
Fig. 4.7 Earnings yield versus ten-year treasury bond yield. (Source: Robert Shiller's data base) 90
Fig. 4.8 US real potential versus actual GDP growth 92
Fig. 4.9 US output gap 93
Fig. 4.10 Average hourly earnings versus PCE core deflator 95
Fig. 5.1 Leptokurtic versus normal distribution 101
Fig. 5.2 Value at risk at 95% level 102
Fig. 5.3 Loosely based on Asness et al. (2012) 110
Fig. 6.1 Levels of factors 116
Fig. 6.2 Ten-year term premium 138
Fig. 6.3 Ten-year spread between baa-rated corporate bonds and US treasuries 139

Fig. 7.1 Factor investing between passive and active management. (Source: © MSCI Inc. Used with permission) 156
Fig. 7.2 Factor risks and returns 1975–2014. (Source: © MSCI Inc. Used with permission) 158
Fig. 7.3 Cumulative excess factor returns versus the MSCI World index, 1975–2014. (Source: © MSCI Inc. Used with permission) 160
Fig. 7.4 Implementation 161
Fig. 7.5 MSCI World risk factors versus MSCI All Countries, 1998–2018, % p.a. (Source: Bloomberg, Macrobond) 168
Fig. 7.6 Risk factors and the economic cycle, 1998–2018, % p.a. 169
Fig. 8.1 US real GDP, year-on-year change. (Source: The Federal Reserve of Saint Louis) 178
Fig. 8.2 US real GDP versus household consumption, year-on-year change. (Source: US Bureau of Economic Analysis) 179
Fig. 8.3 US real GDP versus volatile components, year-on-year change. (Source: US Bureau of Economic Analysis) 180
Fig. 8.4 Nominal GDP and corporate profits after tax, including inventory valuation adjustment (IVA) and capital consumption adjustment (CCAdj), forwarded one quarter. (Source: US Bureau of Economic Analysis) 181
Fig. 8.5 Output gap versus unemployment gap. (Source: US Congressional Budget Office and Bureau of Labor Statistics) 183
Fig. 8.6 Output gap versus resource utilization. (Source: Bureau of Labor Statistics and the Federal Reserve) 184
Fig. 8.7 Output gap and labor costs. (Source: The Congressional Budget Office and the Bureau of Labor Statistics) 185
Fig. 8.8 Actual versus potential growth and the output gap 186
Fig. 8.9 Actual versus potential GDP growth, 1987–2017. (Source: US Bureau of Economic Analysis) 187
Fig. 8.10 The economy in four phases 187
Fig. 8.11 The output gap over the business cycle. (Source: The Federal Reserve of Saint Louis) 188
Fig. 8.12 The output gap and the Fed funds rate. (Source: The U.S. Congressional Budget Office and the Federal Reserve) 190
Fig. 8.13 Participation rate and prime-age employment rate. (Source: US Bureau of Labor Statistics) 191
Fig. 8.14 Policy rates and the slope of the yield curve 192
Fig. 8.15 Ten-year and two-year Treasury bond yields 193
Fig. 8.16 Output gap and the slope of the yield curve 194
Fig. 8.17 Recessions and the slope of the yield curve 195
Fig. 9.1 Drivers of asset class correlations 202
Fig. 9.2 Phase I 204
Fig. 9.3 Phase II 205

Fig. 9.4 Phase III 206
Fig. 9.5 Phase IV 207
Fig. A.1 Correlation and diversification 215
Fig. A.2 Portfolio volatility and asset correlation 216
Fig. A.3 The efficient frontier 220
Fig. A.4 Efficient frontier with borrowing 226
Fig. A.5 The security market line 229

List of Tables

Table 2.1 The Treynor ratio: A numerical example 29
Table 2.2 Alpha versus the Treynor ratio: A numerical example 31
Table 2.3 Portfolio ranking on the Sharpe ratio: A numerical example 34
Table 2.4 Portfolio ranking on M^2: A numerical example 35
Table 2.5 Determinants of the interaction effect 40
Table 2.6 Example: Portfolio versus benchmark returns 40
Table 2.7 Example: Portfolio attribution per asset class 41
Table 2.8 Example: TAA attribution with the BF model 43
Table 3.1 Simulations of Terminal Wealth 55
Table 4.1 Asset class returns: 1802–2012 64
Table 4.2 Asset class returns: 1926–2016 65
Table 4.3 Asset class returns: 1990–2009 66
Table 4.4 CAPE and subsequent ten-year returns 88
Table 5.1 Estimated portfolio weights 103
Table 5.2 Portfolio weights using M-CVaR versus MVO 107
Table 6.1 Liquidity compared to size, value and momentum 135
Table 6.2 Based on Ibbotson et al. (2013) 136
Table 6.3 Annualized performance statistics 141
Table 6.4 Pairwise correlations 142
Table 6.5 Annualized performance statistics, long-only portfolios 143
Table 7.1 Frequency of outperformance versus the MSCI World index, based on monthly prices on a rolling basis from 1975–2014 159
Table 7.2 Frequency of lower volatility versus the MSCI World index, based on monthly prices on a rolling basis from 1975–2014 159
Table 7.3 Long-term correlations between factor indices based on monthly returns from 1975–2014 159
Table 7.4 Risk factors and the economic cycle, 1998–2018, % p.a. 168
Table 8.1 Dating the business cycle 177

Table 8.2 Age distribution and the participation rate 191
Table 8.3 Fed funds rates and the yield curve 194
Table 9.1 Average annual return (%) under different regimes, from Q4 1973 to Q4 2010 198
Table 9.2 Sharpe ratios of asset classes in different macro-scenarios 200
Table A.1 Standard deviation of portfolio returns with different levels of correlation 216
Table A.2 Minimum standard deviation portfolio 217
Table A.3 Returns, volatility, correlations and covariances, three assets 223

Part I

Foundations

1

Introduction to Asset Allocation

"More people should learn to tell their dollars where to go instead of asking them where they went."
—Roger Bacon

This is the first of the three foundational chapters of the book. We start off by defining *asset allocation* and *asset classes* in Sect. 1.1. We then move on to examine the *asset allocation process* in Sect. 1.2, the division between *strategic asset allocation* (SAA) and *tactical asset allocation* (TAA) in Sect. 1.3, and the investment process in Sect. 1.4. We finish with an analysis of *rebalancing strategies* and their implications in Sect. 1.5.

1.1 Asset Allocation and Asset Classes

The term asset allocation refers to the composition of an investor's portfolio on different *asset classes*. A central tenet of asset allocation is that this composition is the main determinant of the risk and expected return of the portfolio, while the exposure to different asset classes constitutes the main source of diversification. From the perspective of modern portfolio theory, asset allocation represents the investor's exposure to *systematic risk* which highlights its importance.[1]

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[1] See also Sharpe et al. (2007). In modern portfolio theory (MPT), systematic risk affects all assets and is "macro" in nature. The appendix at the end of the book provides a brief review of MPT.

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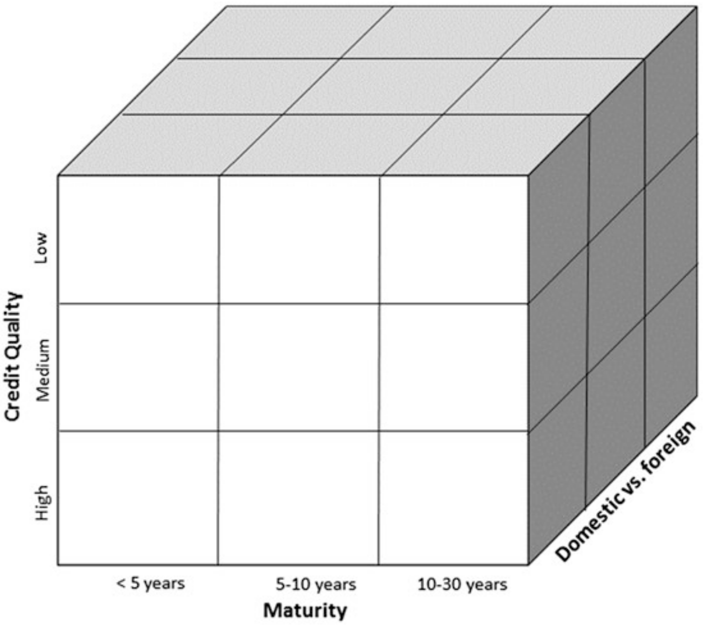

Fig. 1.1 A bond universe

What constitutes an asset class? A general criterion is that assets within an asset class share the same risk and return characteristics and react to similar factors. The return on assets within an asset class should therefore have a *high correlation*, whereas the correlation between one asset class and another should be significantly lower (giving rise to the diversification effect). It follows that if the correlation between assets within a defined asset class is too low, there is a case for changing the definition and treating them like two or more asset classes. Conversely, a high correlation between two asset classes constitutes a reason for treating them as one. Figure 1.1 provides an illustration of the *bond universe*.

Bonds have different *maturities*, different *credit quality* and can be *domestic* (from the investor's point of view) or *foreign*. This classification clearly does not encompass all types of bond instruments. But more importantly, we might equally be interested in distinctions such as "*government paper vs. credit*" and "*developed market vs. emerging market paper*". Government paper is generally considered "risk-free", even if there are some exceptions to this rule,[2] whereas, for example, high yield bonds with a low credit rating often exhibit behavior more similar to that of equities than to government bonds. Similarly, developed market bonds are typically analyzed differently from emerging market bonds because their sensitivities to general factors differ substantially. All of this highlights the need for relatively specific definitions of asset classes for the purposes of asset allocation.

---

[2] Countries which have their own currency can always opt for some form of monetization of their local currency debt. For this reason, defaults mostly affect foreign currency denominated debt.

Figure 1.2 illustrates three dimensions for the *equity universe*. Here we have employed the *Morningstar Style Box* classification,[3] adding the "domestic vs. foreign" dimension. Again, other distinctions may be equally relevant, such as sector and degree of interest rate sensitivity.

One asset class definition in particular does not seem to live up to our criterion of homogeneity of the constituent assets: *alternative assets*. Firstly, this asset class includes categories as different as real estate, direct equity and hedge funds which exhibit low or even negative correlations. Secondly, it fails to distinguish between what are truly "assets" (such as real estate) and what are managed investments such as private equity and hedge funds. For the purposes of asset allocation, this general grouping is clearly not effective.

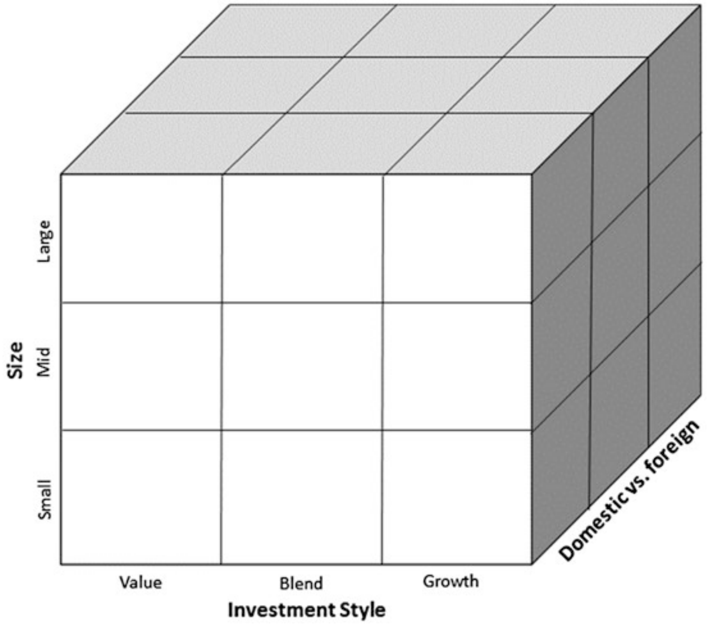

Fig. 1.2 An equity universe

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[3] See also http://www.morningstar.com/InvGlossary/morningstar_style_box.aspx.

1.2 The Asset Allocation Process

To illustrate the different elements in the process, consider an investor ("the sponsor") who has given a mandate to an investment manager ("the manager") to manage a given capital which is initially in the form of cash. The sponsor can be a private individual or an institutional investor such as an insurance company, a pension plan, a foundation or a university endowment. The *Asset Allocation Process* will then essentially consist of three elements, as illustrated in Fig. 1.3.

The *Investment Policy* is formulated either exclusively by the sponsor or in conjunction with the investment manager, and provides overall guidelines for the manager. Its elements will typically include:

1. ***Investment objectives.*** While these can vary considerably, a basic distinction can be made between an objective of *capital preservation* and one of *capital appreciation*. While the former is associated with a conservative investment profile, even this type of investor must aim for a return which is high enough to match inflation in order to conserve the purchasing

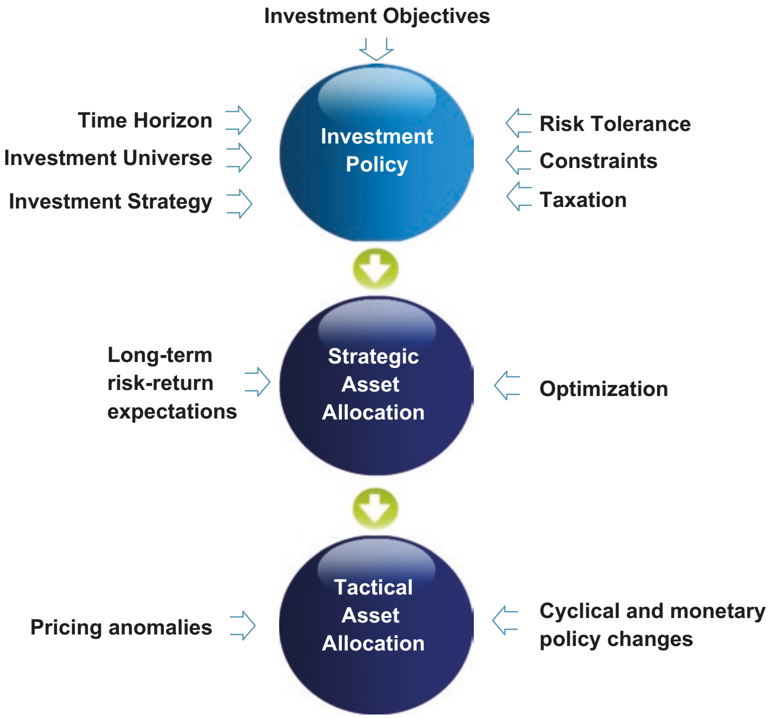
Investment Objectives
Time Horizon
Investment Universe
Investment Strategy
Investment Policy
Risk Tolerance
Constraints
Taxation
Long-term risk-return expectations
Strategic Asset Allocation
Optimization
Pricing anomalies
Tactical Asset Allocation
Cyclical and monetary policy changes

Fig. 1.3 The asset allocation process

power of the capital. A pure capital appreciation objective, on the other hand, would aim at growing the value of the capital in *real terms.* The so-called *total return* approach, used by some university endowments and foundations, seeks a high capital growth over time by reinvesting income, having an equity bias and paying out a proportion of this on an ongoing basis which is sufficiently below the average expected return to be deemed sustainable.[4]

2. ***Time horizon.*** All other things being equal, a longer time horizon will normally imply a greater willingness to accept short-term volatility since the long-term investor has the opportunity to match bad years with subsequent good years.[5] A longer-term investor, on the other hand, is more susceptible to the eroding effects of inflation. Knowledge of the investor's time horizon is relevant to other issues than risk in a narrow sense, however, such as the maturity of fixed income securities in the portfolio and the degree of liquidity of the financial instruments employed in general. To illustrate, even AAA-rated long-dated bonds might be considered relatively risky for an investor whose time horizon is much shorter than the term to maturity, since price declines from upward pressure on long-term yields over the holding period might overshadow the income from coupon payments. For the long-term investor, on the other hand, the long-dated bond, if held to maturity, offers an ex ante certain nominal return, even if the real return remains uncertain. Similarly, a low degree of liquidity of a given instrument might constitute an unwelcome complication for the short-term investor but no obstacle to the long-term investor.
3. ***Investment universe***. The choice of which asset classes to allow in the portfolio is a function of a list of factors including the investor's *time horizon*, requirements for *liquidity*, *attitude to risk* (including currency risk) and general *financial experience*. In this book we will concentrate on liquid financial assets, such as:

    - *Cash or cash equivalents* (such as CDs, Treasury bills [T-bills] or commercial paper with a maturity of 90 days or less).
    - *Currency* other than the investor's reference currency.
    - *Bonds:* domestic or foreign; developed or emerging markets; government or corporate paper; investment grade or lower rating; short term, intermediate or long term.

---

[4] See also Swensen (2009).

[5] On the assumption of mean-reversion of returns over time.

- *Stocks:* domestic or foreign; developed or emerging markets; value or growth; large-cap, mid-cap or small-cap.
- *Commodities.*

4. ***Investment strategy*** in this context refers to what type of *investment management approach* will be employed to meet the investment objectives. Relevant distinctions in this connection include:

   - *Passive*: minor and/or infrequent adjustments of the portfolio to market conditions.
   - *Active*: major and/or more frequent adjustments to market conditions.
   - *Directional*: high positive correlation with the underlying markets.
   - *Contrarian*: high negative correlation with the underlying markets.
   - *Market-neutral/arbitrage*: low or no correlation with any one market; depending on relative value between instruments.

5. ***Risk tolerance*** can be formulated in various ways, such as a *maximum volatility* of the overall portfolio (or of individual elements), measured over a given period or a *maximum drawdown* within, say, any given month, quarter or year.
6. ***Constraints*** on the portfolio management include requirements like a minimum *income generation* from the portfolio, a minimum level of *cash-holding* at any given time or a *maximum holding(s)* of individual securities (typically because of regulatory restrictions).
7. ***Tax status and other unique circumstances*** can often exclude certain investments or concentrate the portfolio on certain investment instruments.

1.3 Strategic and Tactical Asset Allocation

Once the parameters of the investment policy have been laid down, the SAA can be formulated. This asset allocation has a long time horizon (5–10 years or more) and is based on expectations regarding long-term risk and return of the different asset classes and the correlation between them. Optimization techniques from modern portfolio theory are often employed at this stage.

The SAA constitutes a *policy* asset allocation which is typically stated as a target weight for each asset class with some permitted variation around the target. To illustrate, the investor's SAA might stipulate that large company stocks shall take up 30% of the portfolio, small and mid-cap stocks 20%, medium-term government bonds 25%, high-grade corporate bonds 15% and cash 10%, but that the manager is allowed to deviate from this within given ranges. The central weight in this policy asset allocation is henceforth the investment manager's *benchmark:*

- Large company stocks: 35% +/– 15 percentage points
- Small- and mid-caps: 20% +/– 10 percentage points
- Medium-term government bonds: 25% +/– 15 percentage points
- High-grade corporate bonds: 15% +/– 10 percentage points
- Cash: 5% +/– 5 percentage points

Even though the SAA is static in nature, the longer-term assumptions underlying it must be periodically revised and modified which can give rise to changes to the SAA itself. This revision is typically done once a year.

TAA constitutes an *active* complement to the SAA which is essentially passive. In TAA, deviations from the target weights in the SAA, but within the permitted ranges, are made deliberately, on a discretionary basis. The central tenet of TAA is that such deviations of portfolio weights, carried out over shorter periods (say three months to a year) can add value to the portfolio. The deviations may be prompted by apparent pricing anomalies (inefficiencies) in the market or by changes in economic fundamentals and monetary policy, which are of such importance that they make short-term return forecasts differ significantly from those estimated for the purposes of the SAA. The short-term view is expressed by going *overweight* against the central target of those assets that are expected to outperform and going *underweigh*t those assets which are expected to underperform, with a view to returning to benchmark levels once the out- or underperformance has materialized.

Any deviation in the weight of one asset class obviously has implications for the weight of the others. If the manager, for instance, feels particularly bullish about stocks in general at any given time, given the ranges for each asset class in our example, she could take the overall weighting of equities all the way up to 80% and would then have to decide how to "pay" for this through a reduction in the non-equity components. Or the manager might feel particularly bullish about small and mid-capitalization stocks and go all the way up to a 30% weighting of this asset class while reducing large caps to 25%, thus leaving the overall weighting of equities unchanged. This highlights that Asset Allocation requires an integral view of the portfolio, where the interaction between the different asset classes is taken into account. TAA is examined in depth in Part III of the book.